IN THE CLAIMS

Please amend the claims as follows:

1.-30. (Canceled)

31. (New) A method comprising:

receiving a signal from a remote wireless entity;

first determining a data rate and a receive power of said received signal;

second determining a receiver sensitivity at said data rate;

calculating a link margin using said receiver sensitivity and said receive power;

when said calculated link margin is within a first range, selecting a first transmit data rate for use in transmitting data to said remote wireless entity;

when said calculated link margin is within a second range, selecting a second transmit data rate for use in transmitting data to said remote wireless entity, said second transmit data rate being different from said first transmit data rate; and

when said calculated link margin is greater than a threshold value:

selecting a third transmit data rate for use in transmitting data to said remote wireless entity, said third transmit data rate being different from said first and second transmit data rates;

reducing a transmit power level for use in transmitting data to said remote wireless entity by a first amount to form a reduced transmit power level;

transmitting a signal to said remote wireless entity at said reduced transmit power level and said third transmit data rate;

third determining whether an acknowledgement signal has been received from said remote wireless entity in response to said transmitted signal; and

when an acknowledgement signal has been received in response to said transmitted signal, repeating reducing, transmitting, and third determining until an acknowledgement signal is not received in response to a transmitted signal;

wherein said threshold value is greater than an upper limit of said first range and an upper limit of said second range.

32. (New) The method of claim 31, further comprising:

when said calculated link margin is within a third range, selecting a fourth transmit data rate for use in transmitting data to said remote wireless entity, said fourth transmit data rate being different from said first, second, and third transmit data rates, wherein said threshold value is greater than an upper limit of said third range.

33. (New) The method of claim 31, wherein:

calculating includes determining a difference between said receive power of said received signal and said receiver sensitivity.

34. (New) The method of claim 31, wherein:

said third transmit data rate is a maximum transmit data rate.

35. (New) The method of claim 31, further comprising:

when an acknowledgement signal is not received in response to said transmitted signal:

increasing said transmit power level by a second amount to form an increased transmit power level;

transmitting a signal at said increased transmit power level and said third transmit data rate; and

determining whether an acknowledgement signal is successfully received in response to said transmitted signal having said increased transmit power level.

36. (New) The method of claim 35, further comprising:

when an acknowledgement signal is not received in response to said transmitted signal having said increased transmit power level:

increasing said transmit power level by said first amount to form a new increased transmit power level;

transmitting a signal at said new increased transmit power level and said third transmit data rate; and

determining whether an acknowledgement signal has been received in response to said transmitted signal having said new increased transmit power level.

37. (New) The method of claim 36, further comprising:

when an acknowledgement signal has not been received in response to said transmitted signal having said new increased transmit power level, repeating increasing, transmitting, and determining until an acknowledgement signal is received.

38. (New) A wireless device comprising:

a wireless transceiver;

a link margin determination unit to determine a link margin associated with a signal received by the wireless transceiver, using a receive power level of said signal received by the wireless transceiver;

a transmit data rate determination unit to select a transmit data rate for the wireless transceiver based on said link margin determined by said link margin determination unit, wherein said transmit data rate determination unit selects said transmit data rate by determining which of a plurality of link margin ranges said link margin falls within, each range in said plurality of ranges corresponding to a different transmit data rate; and

a transmit power determination unit to determine a transmit power level for the wireless transceiver, wherein said transmit power determination unit, when said link margin determined by said link margin determination unit is greater than a threshold value, operates to:

reduce the transmit power level of the wireless transceiver in predetermined decrements until a signal transmitted by the wireless device no longer receives an acknowledgement from a remote wireless entity;

when a signal transmitted by the wireless device no longer receives an acknowledgement from a remote wireless entity, increase the transmit power level of the wireless device by a first amount to form an increased transmit power level; and

determine whether a signal transmitted by the wireless device at said increased transmit power level receives an acknowledgement from the remote wireless entity.

39. (New) The wireless device of claim 38, wherein:

when said signal transmitted at said increased transmit power level does not receive an acknowledgement from said remote wireless entity, said transmit power determination unit is to increase the transmit power level of the wireless device in predetermined increments until a signal transmitted by the wireless device receives an acknowledgement from said remote wireless entity.

40. (New) The wireless device of claim 38, wherein:

said transmit data rate determination unit selects a maximum data rate when said link margin exceeds said predetermined value.

41. (New) The wireless device of claim 38, wherein:

said link margin determination unit determines said link margin by calculating a difference between said received power level of said signal and a receiver sensitivity.

42. (New) The wireless device of claim 38, wherein:

said receiver sensitivity is estimated based upon a data rate of a signal received by said wireless transceiver.

43. (New) An article comprising a computer readable storage medium having instructions stored thereon that, when executed by a computing platform, result in:

first determining a data rate and a receive power of a signal received from a remote wireless entity;

second determining a receiver sensitivity at said data rate;

calculating a link margin using said receiver sensitivity and said receive power;

when said calculated link margin is within a first range, selecting a first transmit data rate for use in transmitting data to said remote wireless entity;

when said calculated link margin is within a second range, selecting a second transmit data rate for use in transmitting data to said remote wireless entity, said second transmit data rate being different from said first transmit data rate; and

when said calculated link margin is greater than a threshold value:

selecting a third transmit data rate for use in transmitting data to said remote wireless entity, said third transmit data rate being different from said first and second transmit data rates;

reducing a transmit power level for use in transmitting data to said remote wireless entity by a first amount to form a reduced transmit power level;

transmitting a signal to said remote wireless entity at said reduced transmit power level and said third transmit data rate;

third determining whether an acknowledgement signal has been received from said remote wireless entity in response to said transmitted signal; and

when an acknowledgement signal has been received in response to said transmitted signal, repeating reducing, transmitting, and third determining until an acknowledgement signal is not received in response to a transmitted signal;

wherein said threshold value is greater than an upper limit of said first range and an upper limit of said second range.

44. (New) The article of claim 43, wherein:

calculating includes determining a difference between said receive power and said receiver sensitivity.

45. (New) The article of claim 43, wherein said instructions, when executed, further result in:

when an acknowledgement signal has not been received in response to said transmitted signal:

increasing said transmit power level by a second amount to form an increased transmit power level;

transmitting a signal at said increased transmit power level and said third transmit data rate; and

determining whether an acknowledgement signal is successfully received in response to said transmitted signal having said increased transmit power level.

46. (New) The article of claim 45, wherein said instructions, when executed, further result in:

when an acknowledgement signal has not been received in response to said transmitted signal having said increased transmit power level:

increasing said transmit power level by said first amount to form a new increased transmit power level;

transmitting a signal at said new increased transmit power level and said third transmit data rate; and

determining whether an acknowledgement signal has been received in response to said transmitted signal having said new increased transmit power level.

47. (New) The article of claim 46, wherein said instructions, when executed, further result in:

when an acknowledgement signal has not been received in response to said transmitted signal having said new increased transmit power level, repeating increasing, transmitting, and determining until an acknowledgement signal is received.

48. (New) A wireless device comprising:

at least one dipole antenna;

a wireless transceiver coupled to said at least one dipole antenna;

a link margin determination unit to determine a link margin associated with the wireless transceiver using a power level of a signal received by the wireless transceiver;

a transmit data rate determination unit to select a transmit data rate for the wireless transceiver based on said link margin determined by said link margin determination unit, wherein said transmit data rate determination unit selects said transmit data rate by determining which of

a plurality of link margin ranges said link margin falls within, each range in said plurality of ranges corresponding to a different transmit data rate; and

a transmit power determination unit to determine a transmit power level for the wireless transceiver, wherein said transmit power determination unit, when said link margin determined by said link margin determination unit is greater than a threshold value, operates to:

reduce the transmit power level of the wireless transceiver in predetermined decrements until a signal transmitted by the wireless device no longer receives an acknowledgement from a remote wireless entity;

when a signal transmitted by the wireless device no longer receives an acknowledgement from a remote wireless entity, increase the transmit power level of the wireless device by a first amount to form an increased transmit power level; and

determine whether a signal transmitted by the wireless device at said increased transmit power level receives an acknowledgement from the remote wireless entity.

49. (New) The wireless device of claim 48, wherein:

when said signal transmitted at said increased transmit power level does not receive an acknowledgement from said remote wireless entity, said transmit power determination unit is to increase the transmit power level of the wireless device in predetermined increments until a signal transmitted by the wireless device receives an acknowledgement from said remote wireless entity.

50. (New) The wireless device of claim 48, wherein:

said at least one dipole antenna includes multiple dipole antennas in an antenna diversity arrangement.